

# NATIONAL CENTER FOR HEALTH STATISTICS DATA LINE

Maternal health risk factors resulting from medical conditions and the lifestyle of the woman potentially affect all pregnant women and their more than 4 million infants born each year in this country. Better understanding of maternal risk factors is emerging from data now being obtained from a new and expanded birth certificate that came into use nationwide in 1989.

The National Center for Health Statistics (NCHS), part of the Public Health Service's Centers for Disease Control, recently reported the first findings on factors that pose the most risk. "Advance Report of New Data from the 1989 Birth Certificate" (7) provides critical data on those risk factors, known to be causes of low birth weight, the single most important predictor for infant mortality.

In 1989, 20 percent of all mothers smoked during pregnancy. Their infants were nearly twice as likely to be of low birth weight as infants born to nonsmoking mothers. Most at risk were the oldest mothers and those who smoked the most. Women who smoked 1.5 to 2 packs of cigarettes per day were about one-third more likely to have a low birth weight infant than those who smoked half a pack or less. The heavy smokers, those smoking more than 2 packs a day, were 2.5 times more likely than nonsmokers to have a low birth weight infant.

The risk for a low birth weight delivery, an infant weighing less than 2,500 grams, or about 5 pounds, 8 ounces, was more than 1 in 5 among mothers who gained fewer than 22 to 27 pounds during pregnancy, the weight gain recommendation in effect in 1989 (the current maternal weight gain recommendation is 25 to 35 pounds). Their infants were 2 to 4 times more likely to be of low birth weight. Low birth weight was associated with complications during pregnancy and abnormal conditions among the newborn, such as respiratory distress syndrome, a leading cause of infant mortality.

Teenage mothers and their infants are at risk because teenagers are more likely to have such conditions as anemia and hypertension during their pregnancies, less likely to obtain prenatal care, and less likely to gain the recommended amount of weight during their pregnancies than are older

women. About a fourth of all mothers 18 and 19 years of age were found to be smokers, the highest rate of any age group of mothers. Mothers younger than 15 years, however, had the lowest rate of cigarette smoking among mothers.

Black mothers were less likely to have smoked during pregnancy (17 percent) than their white counterparts (20 percent). Those who did smoke, smoked fewer cigarettes. The rate of cigarette smoking among Hispanic mothers during pregnancy was relatively low (8 percent). Education affects tobacco use, and the proportion of smokers declined with higher education attainment. The highest rate was 35 percent for women with less than a high school education, and the lowest rate was for college graduates, 5 percent.

Among women whose pregnancies lasted 40 weeks or longer, 18 percent gained fewer than 21 pounds. Blacks were almost 60 percent more likely than whites to gain fewer than 21 pounds and were 86 percent more likely to gain fewer than 16 pounds during pregnancy. Large racial differences persisted after controlling for age, marital status, or educational attainment.

The new birth certificate calls for information on risk factors as well as the obstetric procedures performed, method of delivery, abnormal conditions, and congenital anomalies of the infant. Use of electronic fetal monitoring was reported for more than two-thirds of all births, more than any other procedure. Ultrasound was performed for almost half of the births in 1989.

Cesarean birth was the method of delivery for 22.8 percent of all births in 1989. The primary cesarean rate was 16.1 percent for births to women with no previous cesarean delivery. More than one-third of the 1989 cesarean deliveries were repeat cesarean procedures. Among women giving birth who had a previous cesarean delivery, 19 percent had a vaginal delivery in the 1989 pregnancy.

Cesarean delivery rates increased directly with age of the mother, rising from 17 percent for teenage mothers to nearly one-third of deliveries for women in their forties. The presence of certain medical conditions, such as diabetes, genital herpes, hypertension,

and uterine bleeding, made a cesarean delivery more likely.

Data in this report are based on all birth certificates of all States and the District of Columbia. Most States report all items on the new birth record. Data are provided to NCHS through the Vital Statistics Cooperative Program.

## Maternal and Infant Health Followback

The 1988 National Maternal and Infant Health Survey (NMIHS) is a follow-back survey of informants named on vital records. NMIHS collected data from hospitals, prenatal health care providers, and mothers in its study of factors related to pregnancy outcome, expanding on information available from birth, fetal death, and infant death vital records.

The survey provides data on socioeconomic and demographic characteristics of mothers, prenatal care, pregnancy history, occupational background, health status of mother and infant, and types and sources of medical care received. The data file links vital records to questionnaire responses given by mothers. It is available from the National Technical Information Service, Springfield, VA 22161, order number PB92-500081, price \$1,050.

Survey users have formed a group to promote use of the survey and to assist analysts in conducting research with the data files. The user group shares information to avoid duplicative efforts, promote collaboration, expose problems in the programs and inconsistencies in the files, and exchange abstracts and papers to guide further research.

A SAS infile, which creates a label for each variable in the data set, has been developed to assist users in processing the data. The infile is available from NCHS on a personal computer diskette, NMIHS.SAS, at no charge. More information is available on NMIHS survey design and methods for variance estimation, current research, research potentials and funding opportunities, and on how to participate in the analyst group. Write NMIHS, NCHS, Room 840, 6525 Belcrest Rd., Hyattsville, MD 20782.

## Prevalence of Digestive Disorders

Digestive disorders are among the medical conditions most frequently reported in the 1989 National Health Interview Survey, a nationwide survey of patterns of illness and disability. Data are based on household interviews conducted with a representative sample of the civilian, noninstitutionalized population.

"Prevalence of Major Digestive Disorders and Bowel Symptoms, 1989," (2) presents data by age, sex, and race. Analysis of the survey data shows that in the general population

- About 7 million persons had functional conditions of the colon and about 6 million had ulcers. Gallstones, gallbladder trouble, and diverticulitis each affected about 3 million persons. Hemorrhoids was the most common condition and was reported for about 23 million adults.
- About 5.3 million persons had chronic constipation and about 2.1 million had chronic diarrhea.
- Except for ulcers, women were more likely than men to have had digestive disorders and bowel complaints in 1989. For almost all the digestive disorders and bowel complaints included in the survey, the percent of adult women affected was nearly twice that of men.
- The conditions, especially gallbladder trouble, ulcers, and diverticulitis, increased significantly with age.

## Physician Care for Diabetes

Patients who visit a physician for diabetes are usually making a repeat visit, usually receive higher levels of diagnostic services, and are more frequently counselled to reduce weight and cholesterol. These are key findings reported in "Office Visits for Diabetes Mellitus: United States, 1989" (3), based on data from the National Ambulatory Medical Care Survey. There were 13.2 million visits to office-based physicians in 1989 for which the principal or first-listed diagnosis was diabetes. An additional 8.7 million visits included diabetes as the second-listed or third-listed diagnosis. Diabetes was the seventh most frequently reported principal diagnosis for patients of all ages, but was the second most frequently reported diagnosis for the 45-74 year age group and the third for those 75 years and older.

Most physician office visits for diabetes were made by patients who were returning for care of the condition. Diabetes was the third most frequent diagnosis for all patients making return visits for the care of previously treated conditions. During the year, nearly 12 return visits for continuing care for diabetes were recorded for every visit that was recorded as a new problem.

## Guide to International Health Data

"International Health Data Reference Guide, 1991," (4) offers help in identifying and acquiring international statistics. The guide indicates the availability of national vital, hospital, health resource, and population-based health survey statistics from government and official agencies in 34 nations. The guide includes a list of agencies and reference persons for each country.

Copies of the guide are available from the NCHS Office of International Statistics, Room 888, 6525 Belcrest Rd., Hyattsville, MD 20782.

## New Public Use Data Files

New public use data files of surveys and data systems are available from the National Technical Information Service.

*National Ambulatory Medical Care Survey, 1990, Patient Data* describes patient visits to a nationwide sample of office-based physicians. Patient visit information covers such characteristics as patients' age, sex, race, ethnicity, expected source of payment and referral, and patient's reason for the visit. Physician's information covers diagnoses, medication prescribed or provided, duration and disposition of the visit, diagnostic and screening services, and ambulatory surgical procedures. Data on the physician includes specialty and type of practice. Order number of the tape is PB92-50168; price, \$240. The 1989 patient visit tape is PB91-50945; price \$240.

*National Ambulatory Medical Care Survey, 1989, Drug Mentions* provides information on medical visits when one or more medications were ordered, administered, or provided. Data are arranged by drug record, one for each drug mentioned. Medications are identified by drug name and code, both generic and brand names. The tape is order number PB 92-500834; price \$240.

*The 1990 National Health Interview Survey* provides data on the prevalence of chronic conditions, incidence of acute conditions and injuries, limitations of activity, days lost from work and school, hospitalization and physician visits, and other measures of health status and use of health services as collected in the annual, nationwide household interview survey. The survey is conducted with a sample of the nation's civilian, noninstitutionalized population. In 1990, the survey covered more than 46,000 households and 120,000 persons. Order number PB92-501170; price \$820.

*National Hospital Discharge Survey, 1990* provides data on inpatient use of non-Federal, short-stay hospitals. The national survey uses the discharge record to gather information on patients' diagnoses, surgical and nonsurgical procedures performed, days of care, and patient characteristics, such as age and sex. The 1990 file is the latest in a series of annual data tapes. Order number PB92-500818; price \$240.

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*Obtain additional information on publications and data tapes, and their availability, from the NCHS Scientific and Technical Information Branch, Room 1064, 6525 Belcrest Rd., Hyattsville, MD 20782; tel. (301) 438-8500.*

## References .....

1. Advance report of new data from the 1989 birth certificate. Monthly vital statistics report; Vol. 40, No. 12, suppl. DHHS Publication No. (PHS) 92-1120. National Center for Health Statistics, Centers for Disease Control, Hyattsville, MD, 1992.
2. LeClerc, F. B., Moss, A. J., Everhart, J. E., and Roth, H. P.: Prevalence of major digestive disorders and bowel symptoms, 1989. Advance Data from Vital and Health Statistics, No. 212. DHHS Publication No. (PHS) 92-1250. Centers for Disease Control, National Center for Health Statistics, Hyattsville, MD, 1992.
3. Schappert, S. M.: Office visits for diabetes mellitus: United States, 1989. Advance Data from Vital and Health Statistics, No. 211. DHHS Publication No. (PHS) 92-1250. Centers for Disease Control, National Center for Health Statistics, Hyattsville, MD, 1992.
4. International Health Data Reference Guide, 1991. Ed. 5, DHHS Publication No. (PHS) 92-1007. Centers for Disease Control, National Center for Health Statistics, Hyattsville, MD, 1992.